

## Large Array Tracking Telescope for Extended Sources

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Satellite borne gamma rays detectors are limited in size constraining their sensitivity to the high energy flux of gamma rays produced in gamma-rays bursts (GRB). However, high energy gamma rays produce muons when hitting the Earth's atmosphere. Those muons can be detected by ground based telescopes and, if identified, can add interesting information on the structure of GRB's. We propose, in this study, a detector with the capability of identifying muons generated by high energy gammas with energies above the GeV range, extracting its signal from a very intense muon background. We discuss, in this presentation, the properties of muons reaching the ground and the mechanisms to separate those coming from gamma rays, from those more ubiquitous muons coming from charged cosmic rays. Evidence for a high energy tail to the signal generated by GRB's have been shown by the TUPI experiment done at the UFF. We discuss the structure of the omni-directional detector and study possible types of implementation of arrangements. The program used to simulate the behavior of the detector is described and we study with it the angular resolution of the possible types of implementation of this detector. We argue in this study about the feasibility of setting up the detector on campus of universities spread all over Brazil.